

KENDALL HYKEN HYDRAUL052

PRODUCT CODE: R00000453997

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1. CHEMICAL PRODUCT AND COMPANY INFORMATION

REVISION DATE: 05/30/1997
UN NUMBER- N/A

PRIMARY APPLICATION- UNIVERSAL TRACTOR HYDRAULIC FLUID

MANUFACTURER- KENDALL REFINING COMPANY
A DIVISION OF SUN COMPANY, INC.
TEN PENN CENTER, 1801 MARKET ST.
PHILADELPHIA PA 19103-1699SYNONYMS.....: HYDRAULIC FLUID
CAS REGISTRY NO: SEE SEC. 2
CAS NAME.....: NO CLASSIFICATION - BLENDED PRODUCT
CHEMICAL FAMILY: MIXTURE
INFORMATION
SUPPLIER... MARIA DAYRIT
PHONE.....: (610) 859-1120EMERGENCY PHONE NUMBERS (AFTER NORMAL BUSINESS HOURS)
SUN CO.. 1-800-964-8861
CHEMTREC. 1-800-424-9300

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2. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT/CAS NO.	LO%	HI%	OSHA		EXPOSURE GUIDELINES		UNIT			
			TWA	STEL	ACGIH	SUN/MFR				
							TWA	STEL	TWA	STEL
LIMITS FOR THE PRODUCT:										
NO SPECIFIC LIMIT										
SEVERELY SOLVENT REFINED HEAVY PARAFFINIC PETROLEUM OIL										
64741-88-4	80.00	95.00	5		5					MG/M3
POLYMER OF STYRENE & MALEIC C4-C20 DIALKYL ESTERS										
68910-21-4	.00	5.00								
CALCIUM SULFONATE										
61789-86-4	.00	5.00								
ZINC DIALKYL DITHIOPHOSPHATE										
63549-42-3	1.50	1.50								
TOLUENE										
108-88-3	.00	1.00	100	150	50					PPM
2-ETHYLHEXANOL										
104-76-7	.00	1.00								
ETHYLENE/PROPYLENE COPOLYMER										
9010-79-1	.00	15.00								
ACRYLIC COPOLYMERS										
63197-48-8	.00	1.00								

ADDITIONAL EXPOSURE LIMITS ----- GOVERNMENT REGULATION
OTHER LIMIT- OIL MIST: 5 MG/M3 (OSHA PEL/ACGIH TLV)

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3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW -----

SEE SECTION 16 FOR MORE INFORMATION.

APPEARANCE-- AMBER FLUID ODOR-- SLIGHT ODOR.

POTENTIAL HEALTH EFFECTS -----

PRIMARY ROUTES OF ENTRY- INHALATION() SKIN(X) EYE() INGESTION()

INHALATION -----

N/A = NOT APPLICABLE N.D. = NO DATA / NOT DETERMINED

NO ACUTE EFFECTS EXPECTED.

SKIN -----
MAY CAUSE MILD IRRITATION WITH PROLONGED OR REPEATED CONTACT. ESTIMATED
DRAIZE SKIN IRRITATION SCORE IS: 1.25 OUT OF 8.0.

EYE -----
CONTACT WITH THE EYE MAY CAUSE MINIMAL IRRITATION.

INGESTION -----
SLIGHTLY TOXIC (LD50 5 TO 15 G/KG). ESTIMATED ORAL LD50 IN RATS IS: > 10
G/KG.

CARCINOGEN LISTED BY-IARC(NO) NTP(NO) OSHA(NO) ACGIH(NO) OTHER(NO)

PRE-EXISTING MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE-
SKIN DISORDERS

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4. FIRST AID MEASURES

INHALATION -----
MOVE PERSON TO FRESH AIR.

SKIN -----
WASH WITH SOAP AND WATER UNTIL NO ODOR REMAINS. IF REDNESS OR SWELLING
DEVELOPS, OBTAIN MEDICAL ASSISTANCE. WASH CLOTHING BEFORE REUSE.

EYE -----
FLUSH WITH WATER FOR AT LEAST 15 MINUTES. IF IRRITATION PERSISTS, OBTAIN
MEDICAL ASSISTANCE.

INGESTION -----
GIVE LIQUIDS AND INDUCE VOMITING UNLESS VICTIM IS UNCONSCIOUS. OBTAIN
EMERGENCY MEDICAL ATTENTION. SMALL AMOUNTS WHICH ACCIDENTALLY ENTER
MOUTH SHOULD BE RINSED OUT UNTIL TASTE OF IT IS GONE.

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5. FIRE FIGHTING MEASURES

FLASH POINT: 399 COC MINIMUM (DEG. F); 200 COC MINIMUM (DEG. C)
AUTOIGNITION TEMP.: 700 ESTIMATED (DEG. F); 371 ESTIMATED (DEG. C)

---FLAMMABLE LIMITS IN AIR---
LOWER EXPLOSIVE LIMIT (LEL): NOT DETERMINED % VOLUME
UPPER EXPLOSIVE LIMIT (UEL): NOT DETERMINED % VOLUME

FIRE AND EXPLOSION HAZARDS -----
CAN BE MADE TO BURN (FLASH POINT GREATER THAN 200F).

EXTINGUISHING-MEDIA -----
WATER SPRAY. REGULAR FOAM. DRY CHEMICAL. CARBON DIOXIDE.

SPECIAL FIRE FIGHTING INSTRUCTIONS -----
WEAR SELF-CONTAINED BREATHING APPARATUS. WEAR STRUCTURAL FIREFIGHTERS
PROTECTIVE CLOTHING.

HFPA/HMIS CLASSIFICATION
HEALTH - 0 / 0
FIRE - 1 / 1
REACTIVITY - 0 / 0
PERSONAL PROTECTION INDEX - X

HAZARD RATING
0=LEAST 1=SLIGHT
2=MODERATE 3=HIGH
4=EXTREME

SPECIFIC HAZARD: NONE KNOWN

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6. ACCIDENTAL RELEASE MEASURES

CONTAIN SPILL. USE PERSONAL PROTECTIVE EQUIPMENT STATED IN SECTION 8.
ADVISE EPA; STATE AGENCY IF REQUIRED. ABSORB ON INERT MATERIAL. SHOVEL,
SWEEP OR VACUUM SPILL.

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7. HANDLING AND STORAGE

NFPA CLASS IIIB STORAGE. WASH THOROUGHLY AFTER HANDLING.

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8. EXPOSURE CONTROL / PERSONAL PROTECTION

CONSULT WITH A HEALTH/SAFETY PROFESSIONAL FOR SPECIFIC SELECTION.

VENTILATION -----
NONE NORMALLY NEEDED.

PERSONAL PROTECTIVE EQUIPMENT -----
EYE -----

PRODUCT MINIMALLY IRRITATING TO EYES. LOCAL SAFETY POLICY DECISION.

GLOVES -----

PROTECTIVE GLOVES RECOMMENDED WHEN PROLONGED SKIN CONTACT CANNOT BE AVOIDED. THE FOLLOWING GLOVE MATERIALS ARE ACCEPTABLE: POLYVINYL CHLORIDE (PVC); NEOPRENE; NITRILE; POLYVINYL ALCOHOL; VITON;

RESPIRATOR -----

CONCENTRATION-IN-AIR DETERMINES PROTECTION NEEDED. USE ONLY NIOSH CERTIFIED RESPIRATORY PROTECTION. RESPIRATORY PROTECTION USUALLY NOT NEEDED UNLESS PRODUCT IS HEATED OR MISTED. HALF-MASK AIR PURIFYING RESPIRATOR WITH DUST/MIST FILTERS OR HEPA FILTER CARTRIDGES IS ACCEPTABLE TO 10 TIMES THE EXPOSURE LIMIT. FULL-FACE AIR PURIFYING RESPIRATOR WITH DUST/MIST FILTERS OR HEPA FILTER CARTRIDGES IS ACCEPTABLE TO 50 TIMES THE EXPOSURE LIMIT. PROTECTION BY AIR PURIFYING RESPIRATORS IS LIMITED. USE A POSITIVE PRESSURE-DEMAND FULL-FACE SUPPLIED AIR RESPIRATOR OR SCBA FOR EXPOSURES ABOVE 50X THE EXPOSURE LIMIT.

OTHER -----

IF CONTACT IS UNAVOIDABLE, WEAR CHEMICAL RESISTANT CLOTHING. THE FOLLOWING MATERIALS ARE ACCEPTABLE AS PROTECTIVE CLOTHING MATERIALS: POLYVINYL ALCOHOL(PVA); POLYVINYL CHLORIDE(PVC); NEOPRENE; NITRILE; VITON; POLYURETHANE; LAUNDER SOILED CLOTHES. FOR NON-FIRE EMERGENCIES RESPIRATORY PROTECTION MAY BE NECESSARY AND WEAR APPROPRIATE PROTECTIVE CLOTHING TO AVOID CONTACT.

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9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT.....: HIGH WITH (DEG. F) _____ WIDE RANGE (DEG. C)
MELTING POINT.....: N/A (DEG. F) _____ N/A (DEG. C)
SPECIFIC GRAVITY....: 0.87 (WATER=1)
PACKING DENSITY.....: N/A (KG/M3)
VAPOR PRESSURE.....: <0.0001 (MM HG @ 20 DEG C)
VAPOR DENSITY.....: 10+ (AIR=1)
SOLUBILITY IN WATER.: NIL (% BY VOLUME)
PH INFORMATION.....: N/A AT CONC. N/A G/L H2O
% VOLATILES BY VOL.: NIL
EVAPORATION RATE....: 1000X SLOWER (ETHYL ETHER=1)
OCTANOL/WATER COEFF.: N.D.
APPEARANCE.....: AMBER FLUID
ODOR.....: SLIGHT ODOR.
ODOR THRESHOLD.....: N.D. (PPM)
VISCOSITY.....: 58.3 SUS @ 210 DEG F ... 58.9 CST @ 40 DEG C
MOLECULAR WEIGHT....: N/A (G/MOLE)

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10. STABILITY AND REACTIVITY

STABILITY -----
STABLE.
INCOMPATIBLE MATERIALS -----
STRONG OXIDIZERS
HAZARDOUS DECOMPOSITION -----

COMBUSTION MAY PRODUCE CARBON MONOXIDE AND OTHER ASPHYXIANTS
POLYMERIZATION -----
WILL NOT OCCUR.

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11. TOXICOLOGICAL INFORMATION

FOR THE PRODUCT -----

ACUTE TOXICITY

ESTIMATED DRAIZE SKIN IRRITATION SCORE IS: 1.25 OUT OF 8.0. ESTIMATED
ORAL LD50 IN RATS IS: > 10 G/KG.

INHALATION: LOW ACUTE TOXICITY. SKIN: MILD IRRITATION WITH PROLONGED
OR REPEATED CONTACT. CALCIUM SULFONATE COMPONENT CAUSED ALLERGIC
REACTION IN ANIMAL STUDIES; NO EVIDENCE IN HUMANS. EYE: MINIMALLY
IRRITATING ON CONTACT. ORAL: PRACTICALLY NON-TOXIC.

SEVERELY SOLVENT REFINED HEAVY PARAFFINIC PETROLEUM OIL (COMPONENT)

INHALATION: LOW ACUTE TOXICITY. SKIN: PRACTICALLY NON-TOXIC BY
ABSORPTION. MAY CAUSE MODERATE IRRITATION WITH PROLONGED AND REPEATED
CONTACT. EYE: MINIMALLY IRRITATING ON CONTACT. INGESTION: PRACTICALLY
NON-TOXIC IF SWALLOWED.

POLYMER OF STYRENE & MALEIC C4-C20 DIALKYL ESTERS (COMPONENT)

INHALATION: NO ACUTE EFFECTS EXPECTED. SKIN: PRACTICALLY NON-TOXIC IF
ABSORBED; NO EFFECTS EXPECTED WITH PROLONGED AND REPEATED CONTACT.
EYES: MINIMAL IRRITATION. ORAL: SLIGHTLY TOXIC.

CALCIUM SULFONATE (COMPONENT)

INHALATION: NO DATA AVAILABLE. SKIN: MODERATE IRRITANT. CAUSED
ALLERGIC SKIN REACTION IN ANIMALS. EYE: MODERATE TO SEVERE IRRITATION.
INGESTION: NO DATA AVAILABLE.

ZINC DIALKYL DITHIOPHOSPHATE (COMPONENT)

INHALATION: DECOMPOSITION MAY OCCUR AT TEMPERATURES IN EXCESS OF 200F
RESULTING IN EVOLUTION OF TOXIC HYDROGEN SULFIDE GAS. H2S MAY CAUSE
CENTRAL NERVOUS SYSTEM (BRAIN) EFFECTS, NAUSEA, DIZZINESS, CONFUSION,
LOSS OF SENSE OF SMELL, MUSCLE CRAMPS, INCOORDINATION, UNCONSCIOUSNESS
COMA, RESPIRATORY FAILURE AND DEATH. SKIN: PROLONGED OR REPEATED
CONTACT MAY CAUSE MODERATE IRRITATION, REDNESS, DRYING, CRACKING,
DERMATITIS. EYE: IRRITANT. ORAL: HARMFUL IF SWALLOWED.

TOLUENE (COMPONENT)

INH: VAPOR HARMFUL! OVEREXPOSURE TO HIGH CONCENTRATIONS: EYE, NOSE,
THROAT, LUNG IRRITATION; CNS (BRAIN) EFFECTS, DIZZINESS, DIFFICULTY
IN BREATHING, COMA, DEATH. REPORTS OF HEART BEAT IRREGULARITIES FROM
MASSIVE EXPOSURE. PROLONGED OVEREXPOSURE CAN CAUSE BRAIN, LIVER,
KIDNEY EFFECTS/DAMAGE. SKIN: CAN BE ABSORBED. PROLONGED CONTACT IS
IRRITATING. EYE: IRRITATION. ORAL: HARMFUL OR FATAL IF SWALLOWED.
PULMONARY ASPIRATION HAZARD-CAN ENTER LUNG & CAUSE DAMAGE. PREG: MAY
CAUSE MENTAL AND/OR GROWTH RETARDATION IN CHILDREN OF FEMALE SOLVENT
ABUSERS (SNIFFERS); IN RATS PROLONGED BREATHING WAS TOXIC TO FETUSES &
MOTHERS - 1500 PPM; NO BIRTH DEFECTS - 5000 PPM. NO EFFECTS - 750 PPM.

2-ETHYLHEXANOL (COMPONENT)

INHALATION: OVEREXPOSURE MAY CAUSE EYE, NOSE, THROAT IRRITATION, NASAL
DISCOMFORT & DISCHARGE, CHEST PAIN, COUGH, HEADACHE, NAUSEA, VOMITING.
SKIN: IRRITATING. PROLONGED/REPEATED CONTACT MAY CAUSE REDNESS AND
SWELLING. PROLONGED WIDESPREAD ABSORPTION CAUSED CNS DEPRESSION,
STUPOR, & UNCONSCIOUSNESS IN ANIMALS. EYE: SEVERE IRRITANT. MAY CAUSE
CORNEAL INJURY. ORAL: MODERATELY TOXIC. MAY CAUSE ABDOMINAL DISCOMFORT
NAUSEA, VOMITING, DIARRHEA, UNCONSCIOUSNESS, OTHER CNS EFFECTS, LIVER
& KIDNEY INJURY (REPEATED INGESTION). PREGNANT RATS: SKIN CONTACT UP
TO 3ML/KG - MATERNAL TOXICITY BUT NO BIRTH DEFECTS; ORAL DOSE 2ML/KG-
EMBRYOFETAL TOXICITY & POSSIBLY INCREASED BIRTH DEFECTS.

ETHYLENE/PROPYLENE COPOLYMER (COMPONENT)

NO DATA AVAILABLE FOR ALL ROUTES OF EXPOSURE.

ACRYLIC COPOLYMERS (COMPONENT)

NO DATA AVAILABLE FOR ALL ROUTES OF EXPOSURE.

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12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY -----

NO DATA AVAILABLE.

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13. DISPOSAL CONSIDERATIONS

FOLLOW FEDERAL, STATE AND LOCAL REGULATIONS. NOT A RCRA HAZARDOUS WASTE IF UNCONTAMINATED. IF "USED", RCRA CRITERIA (IGNITABILITY, REACTIVITY, CORROSIVITY, TOXICITY CHARACTERISTICS) MUST BE DETERMINED. DO NOT FLUSH TO DRAIN/ STORM SEWER. CONTRACT TO AUTHORIZED DISPOSAL SERVICE.

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14. TRANSPORTATION INFORMATION

DOT-
PROPER SHIPPING NAME- PETROLEUM HYDRAULIC OIL
HAZARD CLASS- NOT REGULATED
IDENTIFICATION NUMBER- NOT REGULATED
LABEL REQUIRED- NOT REGULATED

IMDG- PROPER SHIPPING NAME- NO DATA AVAILABLE

IATA- PROPER SHIPPING NAME- NO DATA AVAILABLE

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5. REGULATORY INFORMATION

SARA 302 THRESHOLD PLANNING QUANTITY. N/A

SARA 304 REPORTABLE QUANTITY 99999 POUNDS

SARA 311 CATEGORIES- IMMEDIATE (ACUTE) HEALTH EFFECTS.. N
DELAYED (CHRONIC) HEALTH EFFECTS.. N
FIRE HAZARD N
SUDDEN RELEASE OF PRESSURE HAZARD. N
REACTIVITY HAZARD N

WHEN A PRODUCT AND/OR COMPONENT IS LISTED BELOW, THE REGULATORY LIST ON WHICH IT APPEARS IS INDICATED.

ZINC DIALKYL DITHIOPHOSPHATE - NJ 01
TOLUENE - CA FL MA MN NJ PA 01 07
2-ETHYLHEXANOL - MA PA

01=SARA 313
04=OSHA CARCINOGEN
07=CERCLA 302.4
10=OTHER CARCINOGEN
PA=PENNSYLVANIA RTK
MA=MASSACHUSETTS RTK
FL=FLORIDA
NY=NEW YORK
LA=LOUISIANA

02=SARA 302/304
05=ACGIH CARCINOGEN
08=WHMIS CONTROLLED PROD.

NJ=NEW JERSEY RTK
MI=MICHIGAN 406
RI=RHODE ISLAND
WV=WEST VIRGINIA
ME=MAINE

03=IARC CARCINOGEN
06=NTP CARCINOGEN

CA=CALIFORNIA PROP 65
MN=MINNESOTA RTK
IL=ILLINOIS
CT=CONNECTICUT
OH=OHIO

THIS PRODUCT OR ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON THE U.S. TSCA INVENTORY.

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16. OTHER INFORMATION

WARNING! HIGH PRESSURE INJECTION OF OIL THROUGH THE SKIN IS A MEDICAL EMERGENCY. THERE MAY BE NO SIGN OF INJURY AND NO INITIAL PAIN. THIS OIL MUST BE REMOVED COMPLETELY BY A PHYSICIAN. FAILURE TO OBTAIN IMMEDIATE TREATMENT HAS RESULTED IN LOSS OF A FINGER, HAND, OR ARM. WHMIS CLASSIFICATION: NOT CONTROLLED